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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,521	08/29/2001	Tony N. Kfoury	CS10289	7363
7590	02/08/2006		EXAMINER	
Roland K. Bowler II Motorola, Inc. Intellectual Property Section 600 North U.S. Highway 45 Libertyville, IL 60048			DEANE JR, WILLIAM J	
		ART UNIT	PAPER NUMBER	
		2642		
DATE MAILED: 02/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/941,521	KFOURY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	William J. Deane	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 06 October 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 7-14, 16-21, 23, 24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 7-14, 16-21, 23, 24 and 26-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 – 8, 10, 14 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuovo et al. (US 6593914) in view of Tragatschnig (US 4875234).

Regarding claim 1, Nuovo shows:

sensing an orientation of an input area (56) relative to a housing (52) (col. 3, lines 45 - 50, configuring a display image orientation on a display (54, figs. 4-5) relative to the housing (52) as a function of the orientation of the input area (56) (col. 3, lines 45-63).

Nuovo does not explicitly say if the input area can be rotated through 180 degrees, but Tragatschnig teaches that such is old in the art (see Col. 3, lines 45-49). It would have been obvious to one of ordinary skill in the art to have incorporated such an input area that rotates through 180 degrees as taught by Tragatschnig into the Nuovo et al. device as such would only entail the substitution of one well-known input area for another.

Regarding claim 18, Nuovo shows:

A physically rotatable keypad (56), a display and display drivers (see 54, figs. 4-5), a sensor (col. 3, lines 45-50), and a processor for receiving the sensor signal and in response thereto modifying the display drivers for forming the display image on the

display (54, figs. 4-5) with an orientation that is a function of the orientation of the keypad (see 54, 56 in figs. 4-5) (col. 3, lines 45-63).

Nuovo does not explicitly say if the input area can be rotated through 180 degrees, but Tragatschnig teaches that such is old in the art (see Col. 3, lines 45-49). It would have been obvious to one of ordinary skill in the art to have incorporated such an input area that rotates through 180 degrees as taught by Tragatschnig into the Nuovo et al. device as such would only entail the substitution of one well-known input area for another.

Regarding claim 24, Nuovo shows:

A housing (52), a pivotal keypad (56) having at least first and second positions (see figs. 4-5), a display (54) having a first display configuration when the keypad is in the first position (i.e. fig. 4) and the display (54) having a second display configuration when the keypad is in the second position (i.e. fig. 5).

Nuovo does not explicitly say if the input area can be rotated through 180 degrees, but Tragatschnig teaches that such is old in the art (see Col. 3, lines 45-49). It would have been obvious to one of ordinary skill in the art to have incorporated such an input area that rotates through 180 degrees as taught by Tragatschnig into the Nuovo et al. device as such would only entail the substitution of one well-known input area for another.

Regarding claim 26, Nuovo shows:

a housing (52), a keypad (56), a display (54) and the display system (54) nearer the lower portion (left side) of the housing than the keypad (56), the keypad (56) nearer the upper portion (right antenna side) of the housing than the display (54). In addition, it depends on what is defined as upper portion and lower portion, which applicant has not done.

Regarding claims 8, 10, 14, 16-17, 19-21, 23, and 27-28, Nuovo shows:

The orientation of the input area (56) includes at least one of sensing the orientation through input through a dome sheet array (see fig. 3), the physical rotation of the input area and the electron rotation of the display (figs. 4-5), the sensing or position detecting sensor of the orientation of a keypad (56, col. 3, lines 45-52), remapping keys based on a look-up table relative to key sensors (col. 3, lines 45-52, 26-44), modifying image forming display drivers in response to sensing the orientation of the keypad (i.e. figs. 4-5), the 90 or 180 degrees rotation (col. 2, lines 36-43), the keys and its key housing (see 56), key sensors and its sensor housing (84 in fig. 3), the key sensors are one of the resistive, capacitive and bubble switches (keymat 82) and the keypad and the display in the first and second positions (figs. 4-5).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nuovo in view of Tragatschnig and further in view of Wolf et al. (US 6349221).

Regarding claim 9, Nuovo/Tragatschnig shows the keypad (input area).

Nuovo/Tragatschnig differs from the claimed invention in that it does not explicitly teach that the keypad is a touchscreen. However, push-button type keypad and touchscreen type keypad are the most common types of keypads in electronic devices.

This is also shown by Wolf's keypad (5, col. 2, lines 22-27).

Hence, the basic concept here is to provide a rotatable keypad, this is taught by Nuovo/Tragatschnig. Therefore, it would have been obvious for one of ordinary skill in the art to use Nuovo/Tragatschnig as it is, or to use a touchscreen keypad in Nuovo/Tragatschnig with/without the teaching of Wolf because these types of keypads are considered to be alternative to each other, whether the touchscreen or the push-button type is used, they should be considered as a variation of the Nuovo/Tragatschnig device, as long as Nuovo/Tragatschnig's basic concept of providing a rotatable keypad is substantially unchanged (see also col. 2, lines 22-27 in Wolf).

Claims 1 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuovo in view of Tragatschnig and further in view of Baldoni (US 4267409).

Regarding claims 1 1-12, Nuovo shows the keypad (56). Nuovo differs from the claimed invention in that it does not explicitly show the details of the keypad, such as the keypad support includes projections, the keypad membrane includes notches, and the keypad disc includes tabs and slot. However, Baldoni, in a keypad, teaches providing a keypad support includes projections (12, 15), a keypad membrane includes notches (22), and a keypad disc includes tabs and slots (14 for receiving 15). Hence, the concept of providing a keypad is well taught by Nuovo/Tragatschnig, therefore, it would have been obvious for one of ordinary skill in the art to adapt the method of

Baldoni in Nuovo/Tragatschnig when assembling a keypad, this simply can be considered as an intended use of Baldoni, or a variation of Nuovo/Tragatschnig, as long as the basic concept of providing a rotatable keypad is substantially the same.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the Abstract and Figs. of the references cited on the accompanying 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bill Deane whose telephone number is (571) 272-7484. In addition, facsimile transmissions should be directed to Bill Deane at facsimile number (571) 273-8300.

28Jan2006



WILLIAM J. DEANE, JR.  
PRIMARY EXAMINER